

CLEANING POLISH ETCH COMPOSITION AND PROCESS FOR A SUPERFINISHED SURFACE OF A SUBSTRATE

Abstract of the Disclosure

5 A cleaning polish etch composition and process for removing slurry particles which adhere
to the surfaces of the substrates (e.g., disk substrates, head wafers, etc.) that are superfinished
using a slurry. The cleaning polish etch composition comprises a carrying fluid and etchant for
etching the substrate and/or attached slurry particles. The composition is applied to the surface
of the substrate while a pad mechanically rubs the surface to etch the substrate under polish
conditions thereby maintaining the superfinish surface while removing the superfinish polish
10 slurry debris by etching and dilution. Subsequent cleaning with standard soap solutions removes
substantially all contamination from the surface of the substrate. In exemplary embodiments, the
cleaning polish etch composition and process produced a glass disk substrate and a Sendust head
wafer, each having substantially no surface contamination as seen by atomic force microscope
(AFM) after standard soap cleaning steps.